French, Ltd. Project

FLTG, Incorporated

15010 FM 2100, SUITE 200, CROSBY, TEXAS 77532
R. L. SLOAN, PROJECT COORDINATOR
PHONE 713-328-3541 FAX 713-328-4687

June 10, 1994

Mr. John Villanachi
Texas Dept. of Health
Bureau of Epidemiology
1100 West 49th St.
Austin, TX 78756

Re: Riverdale Groundwater/Potable Water Samples

Dear John:

Attached is recent data relating to groundwater quality in the area of the French site and in the south side of Riverdale (along Maple Drive).

Figure 1 shows the extent of the vinyl chloride in the deeper INT zone; the Riverdale residential wells along Maple Drive (RD-1 through RD-6) are screened in the upper S1 zone. The S1 wells in the area SW of the French site have not shown any chemicals of concern in Riverdale.

INT wells 132, 140, 141, 136, 142, 144, 145, and 146 are in Riverdale. The vinyl chloride content of the plume decreases sharply to the SW; currently there is a sharp gradient (in Riverdale) in the INT zone toward the NE.

Also, attached is the recent analytical data on the RD wells; RD-2 showed low levels of vinyl chloride on 5/11/94 and 5/24/94. When the 5/11/94 results were received, the residents using water from RD-2 were contacted; the results were explained; FLTG advised the residents using RD-2 that they should not use the water from RD-2 for cooking or direct consumption; FLTG is providing bottled water to these residents. In addition, RD-1 and RD-2 were tested for fecal coliform; RD-2 tested positive; a field inspection revealed that the casing on RD-2 is broken at the surface, which allows surface bacteria to enter the well.

FLTG intends to provide bottled water to the residents using RD-2 until the monthly sampling results indicate compliance with federal drinking water standards for three consecutive months.

Please contact me if you have any questions or comments.

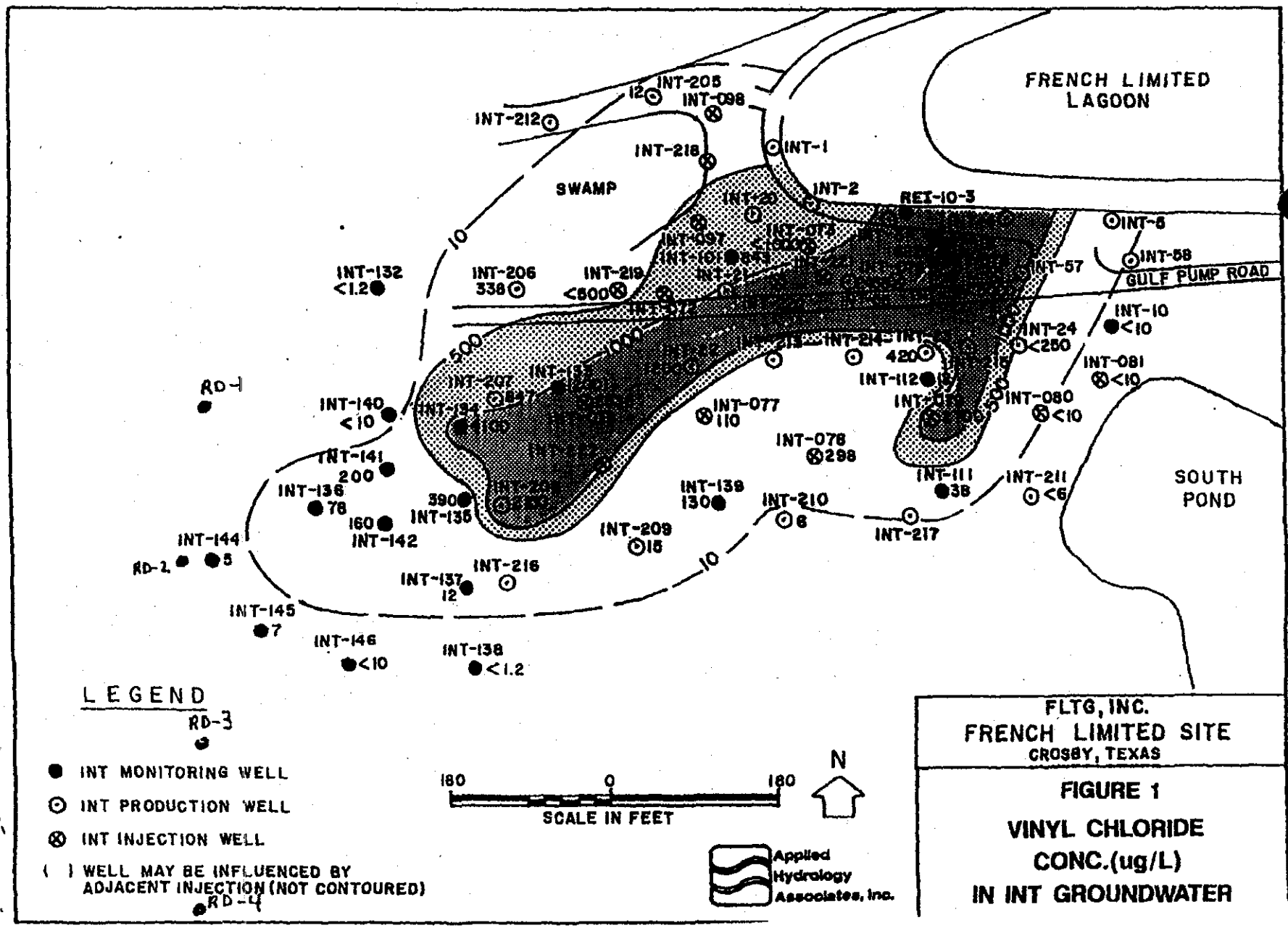
Sincerely,

R.L. Sloan

RS/ks

cc: J. Black, USEPA
J. Sher, TNRCC
J. McLeod, CH2M Hill

Attachments


FRENCH LIMITED LAGOON
SWAMP
SOUTH POND
GULF PUMP ROAD
INT-205
INT-098
INT-212
INT-218
INT-1
INT-2
REI-10-3
INT-5
INT-58
INT-57
INT-10
<10
INT-24
<250
INT-081
<10
INT-080
<10
INT-132
<1.2
INT-206
338
INT-219
<500
INT-073
INT-214
420
INT-112
INT-077
110
INT-078
298
INT-111
38
INT-211
<6
INT-140
<10
INT-141
200
INT-136
78
INT-135
390
INT-142
160
INT-139
130
INT-210
6
INT-217
INT-209
15
INT-144
5
INT-216
INT-137
12
INT-145
7
INT-146
<10
INT-138
<1.2
RD-1
RD-2
RD-3
RD-4
10
500
1000
180
0
180
SCALE IN FEET
N
LEGEND
INT MONITORING WELL
INT PRODUCTION WELL
INT INJECTION WELL
( ) WELL MAY BE INFLUENCED BY ADJACENT INJECTION (NOT CONTOURED)
Applied Hydrology Associates, Inc.
FLTG, INC.
FRENCH LIMITED SITE
CROSBY, TEXAS
FIGURE 1
VINYL CHLORIDE CONC.(ug/L) IN INT GROUNDWATER

044861

Riverdale Well Samples — French Ltd. Project

	(b) (6) Address			(b) (6)				(b) (6)			
	Detect Limit	Federal DW* Standard	5/11/94 RD-1	5/24/94 RD-1	6/23/94 RD-1	7/15/94 RD-1	5/11/94 RD-2	5/24/94 RD-2	6/23/94 RD-2	7/15/94 RD-2
Chloromethane	2		ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	2		ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	2	^2	ND	ND	ND	ND	7	8	5	6
Chloroethane	2	^10	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	1	5	ND	ND	0.9	ND	ND	ND	ND	ND
Acetone	2	^3500	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	1	^3500	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1	7	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1	^5	ND	ND	ND	ND	ND	ND	0.6	ND
1,2-Dichloroethene(Total)	1	70	ND	ND	ND	ND	2	ND	ND	2
Chloroform	1	100	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1	5	ND	ND	ND	ND	1	ND	0.9	0.5
2-Butanone	2	^1700	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1	^200	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	1	5	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	2	^35000	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1		ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	^5	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1	^5	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1		ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	5	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1		ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	2		ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	1		ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	2	^1700	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	2	^5	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1	^5	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	^2	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1	1000	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1	^700	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	700	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	1	^100	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	1	10000	ND	ND	ND	ND	ND	ND	ND	ND
Fecal Coliform (colonies per 100 ml)					0	0			200+	200+

Values in ug/L

* = Fed. DW Std except where denoted by "^" symbol it is FLTG GW cleanup criteria

Shaded values indicate detected concentration at or above detection limits.

Riverdale Well Samples

French Ltd. Project

0448862

	(b) (6) Address =>		(b) (6)					
	Detection Limit	Federal DW* Standard	5/11/94 RD-1	5/11/94 RD-2	5/11/94 RD-3	5/11/94 RD-4	5/11/94 RD-5	5/11/94 RD-6
Chloromethane	2		ND	ND	ND	ND	ND	ND
Bromomethane	2		ND	ND	ND	ND	ND	ND
Vinyl chloride	2	^2	ND	7	ND	ND	ND	ND
Chloroethane	2	^10	ND	ND	ND	ND	ND	ND
Methylene Chloride	1	5	ND	ND	ND	ND	ND	ND
Acetone	2	^3500	ND	ND	ND	ND	ND	ND
Carbon disulfide	1	^3500	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1	7	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1	^5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethene(Total)	1	70	ND	2	ND	ND	ND	ND
Chloroform	1	100	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1	5	ND	1	ND	ND	ND	ND
2-Butanone	2	^1700	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1	^200	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	1	5	ND	ND	ND	ND	ND	ND
Vinyl acetate	2	^35000	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1		ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	^5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1	^5	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1		ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	5	ND	ND	ND	ND	ND	ND
Benzene	1	5	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1		ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	2		ND	ND	ND	ND	ND	ND
Bromoform	1		ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	2	^1700	ND	ND	ND	ND	ND	ND
2-Hexanone	2	^5	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1	^5	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	^2	ND	ND	ND	ND	ND	ND
Toluene	1	1000	ND	ND	ND	ND	ND	ND
Chlorobenzene	1	^700	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	700	ND	ND	ND	ND	ND	ND
Styrene	1	^100	ND	ND	ND	ND	ND	ND
Xylene (total)	1	10000	ND	ND	ND	ND	ND	ND

Values in ug/L

* = Fed. DW Std except where denoted by "^" symbol it is FLTG GW cleanup criteria

Shaded values indicate detected concentration at or above detection limits.

Riverdale Well Samples

French Ltd. Project

	(b) (6)	Address = >	(b) (6)							
	Detect. Limit	Federal DW*	5/11/94	5/24/94	5/11/94	5/24/94	5/11/94	5/11/94	5/11/94	5/11/94
	5-11 sample	Standard	RD-1	RD-1	RD-2	RD-2	RD-3	RD-4	RD-5	RD-6
Chloromethane	2		ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	2		ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	2	^2	ND	ND	7	6	ND	ND	ND	ND
Chloroethane	2	^10	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	1	5	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	2	^3500	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	1	^3500	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1	7	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1	^5	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethene(Total)	1	70	ND	ND	2	ND	ND	ND	ND	ND
Chloroform	1	100	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1	5	ND	ND	1	ND	ND	ND	ND	ND
2-Butanone	2	^1700	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1	^200	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	1	5	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	2	^35000	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1		ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	^5	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1	^5	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1		ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	5	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1		ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	2		ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	1		ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	2	^1700	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	2	^5	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1	^5	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	^2	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1	1000	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1	^700	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	700	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	1	^100	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	1	10000	ND	ND	ND	ND	ND	ND	ND	ND

Values in ug/L

* = Fed. DW Std except where denoted by "^" symbol it is FLTG GW cleanup criteria

Shaded values indicate detected compounds

044865

North Water District Laboratory Services, Inc.

301 Wells Fargo Drive • Suite 6 • Houston, Texas 77090 • (713) 893-3357 • Fax (713) 893-9391

CLIENT: FLTG, Inc.
1024 Gulf Pump Rd.
Crosby, Texas 77532
Attn: Mr. Dick Sloan

SAMPLE DATE & TIME: May 24, 1994; 10:00
COLLECTED BY: S.R. (Client)

Location:	RD-1	RD-2
Sample No.:	M08C000301	M08C000302
PARAMETER		
Fecal Coliform	negative	positive

ANALYST/DATE/TIME: JU/05-24-94/1400

Methods used are from Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992.

ANALYTICAL LAB SUPERVISOR

041866

Time Printed: 1:07 pm
Date Printed: 5/23/94

User: Ron
Page 1

Analysis Request and Chain of Custody Record No.: 1895

FRENCH LTD. PROJECT	REPORTING LABORATORY
FLTG, Incorporated 15010 FM 2100, Suite 200 Crosby, Texas 77532 (713) 328-5860 Fax: (713) 328-2996	Name: North Water Dist Lab Serv Address: 301 Wells Fargo #6 Houston, TX 77090 Contact: Roy McCoy Phone: (713) 893-3357 Fax: (713) 893-9391
DATA PACKAGE TO: FLTG, INCORPORATED 1024 GULF PUMP ROAD CROSBY, TX 77532	Requested By: Dick Sloan Standard TA?: N Days: 3

FLTG MATRIX CODE: M08C
FLTG SET NUMBER: M08C0003
Quality Control Level: II
Site Location: 1024 Gulf Pump Road
Crosby, TX 77532

FLTG Sample No.	Date	Time	Location	Grab/ Comp	Matrix	Type
M08C000301	5/24/94	1000	RD-1	Grab	Water	ENV
M08C000302	5/24/94	1030	RD-2	Grab	Water	ENV

SAMPLER'S Name(s) (PRINT!)	Affiliation:
1. Steve Rye 2. Ron Jansen 3.	Sampling Team

Carrier: Tempo	Bill No.:

RELINQUISHED BY: (SIGN)	(INITIALS)	Date	Time	RECEIVED BY: (SIGN)	(INITIALS)	Date	Time
1.	RJ	5-24-94	1650				
2.							

RETURNED BY: (SIGN)	(INITIALS)	Date	Time	DISPOSED BY: (SIGN)	(INITIALS)	Date	Time
1.							
2.							

NOTES TO LAB:
Please FAX data as soon as possible. Requested turnaround is 3 days.

White - Original yellow - [illegible]

086061

French, Ltd. Project

FLTG, Incorporated

1024 GULF PUMP ROAD, CROSBY, TEXAS 77532 PHONE 713-328-1648 FAX 713-328-2996

August 11, 1994

Mr. Neil Pflum
US EPA, Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

Re: Sampling Results, Risk Analysis, Riverdale Domestic Wells

Dear Neil:

As per our recent phone conversation, I have attached the most recent data on the Riverdale potable wells (RD-1 & RD-2) that are sampled each month. RD-1 consistently shows no organic chemicals or fecal coliforms; RD-2 shows low levels of vinyl chloride and significant levels of fecal coliforms. FLTG, Inc. has been providing bottled drinking water to the residents who use the water from RD-2 since the low levels of vinyl chloride in RD-2 became known.

The data on RD-1 and RD-2 has been presented to the EPA, the TNRCC, the local residents, and the Texas Department of Health (see attached June 10, 1994 letter to John Villanachi).

Based on discussions with EPA, TNRCC, and the Texas Department of Health (see attached June 22, 1994, letter to R.L. Sloan and June 27, 1994, letter to John Villanachi), FLTG, Inc. developed the attached work plant (July 6, 1994) to develop data to evaluate potential inhalation risk. The results of the sampling and subsequent risk assessment are presented in the attached July 21, 1994, memo to Dick Sloan. The inhalation risk during showering due to vinyl chloride is 5.4×10^{-7} which is below the allowable level of 1.0×10^{-6}. The potential inhalation risk due to a washing machine or a dishwasher is insignificant when compared to the potential risk during showering.

No action is required to reduce the potential inhalation risk to the residents using RD-2 water.

Water well to replace RD-2; this would improve flow control in the affected aquifer, and this would provide water free of vinyl chloride and free of fecal coliforms to the residents who now use RD-2 water.

Please contact me if you have any questions or comments.

Sincerely,

R.L. Sloan

RS/rc

Attachments

c: Judith Black
John Villanachi
James Sher
John Mcleod

Riverdale Well Samples

French Ltd. Project

	(b) (6) Detectio Limit	Addres ederal DW Standard	(b) (6) 5/11/94 RD-3	9/15/94 RD-3	10/13/94 RD-3	5/11/94 RD-4	9/15/94 RD-4	10/13/94 RD-4	5/11/94 RD-5	9/15/94 RD-5	10/13/94 RD-5	5/11/94 RD-6	9/15/94 RD-6	10/13/94 RD-6
Chloromethane	2		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	2		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	2	*2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	2	*10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	1	5	ND	5	ND	ND	6	ND	ND	1	ND	ND	2	ND
Acetone	2	*3500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	1	*3500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1	*5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethene(Total)	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	2	*1700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1	*200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	2	*35000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	*5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1	*5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	ND	ND	ND	ND	1	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	2		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	2	*1700	ND	ND	ND	ND	ND	ND	ND	7	ND	ND	ND	ND
2-Hexanone	2	*5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1	*5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	*2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1	*700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	1	*100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	1	10000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fecal Coliform	0	0		0	0		19	0		0	0		130	0

Values in ug/L

* = FLTG GW cleanup criteria

Methylene chloride detected in Lab Blank for 09/15/94 samples.

Shaded values indicate detected concentration.

Riverdale Well Samples

French Ltd. Project

	(b) (6)	Address =>	(b) (6)							
	Detect. Limit 5-11 sample	Federal DW* Standard	5/11/94 RD-1	5/24/94 RD-1	5/11/94 RD-2	5/24/94 RD-2	5/11/94 RD-3	5/11/94 RD-4	5/11/94 RD-5	5/11/94 RD-6
Chloromethane	2		ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	2		ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	2	^2	ND	ND	7	8	ND	ND	ND	ND
Chloroethane	2	^10	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	1	5	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	2	^3500	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	1	^3500	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1	7	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1	^5	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethene(Total)	1	70	ND	ND	2	ND	ND	ND	ND	ND
Chloroform	1	100	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1	5	ND	ND	1	ND	ND	ND	ND	ND
2-Butanone	2	^1700	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1	^200	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	1	5	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	2	^35000	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1		ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	^5	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1	^5	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1		ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	5	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1		ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	2		ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	1		ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	2	^1700	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	2	^5	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1	^5	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	^2	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1	1000	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1	^700	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	700	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	1	^100	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	1	10000	ND	ND	ND	ND	ND	ND	ND	ND

Values in ug/L

* = Fed. DW Std except where denoted by "^" symbol it is FLTG GW cleanup criteria

Shaded values indicate detected concentration at or above detection limits.

044886

Riverdale Well Samples — French Ltd. Project

	(b) (6) Address = >			(b) (6)			(b) (6)	
	Detect. Limit	Federal DW* Standard	5/11/94 RD-1	5/24/94 RD-1	6/23/94 RD-1	5/11/94 RD-2	5/24/94 RD-2	6/23/94 RD-2
Chloromethane	2		ND	ND	ND	ND	ND	ND
Bromomethane	2		ND	ND	ND	ND	ND	ND
Vinyl chloride	2	^2	ND	ND	ND	7	8	5
Chloroethane	2	^10	ND	ND	ND	ND	ND	ND
Methylene Chloride	1	5	ND	ND	0.9	ND	ND	ND
Acetone	2	^3500	ND	ND	ND	ND	ND	ND
Carbon disulfide	1	^3500	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1	7	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1	^5	ND	ND	ND	ND	ND	0.6
1,2-Dichloroethene(Total)	1	70	ND	ND	ND	2	ND	ND
Chloroform	1	100	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1	5	ND	ND	ND	1	ND	0.9
2-Butanone	2	^1700	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1	^200	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	1	5	ND	ND	ND	ND	ND	ND
Vinyl acetate	2	^35000	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1		ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	^5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1	^5	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1		ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	5	ND	ND	ND	ND	ND	ND
Benzene	1	5	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1		ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	2		ND	ND	ND	ND	ND	ND
Bromoform	1		ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	2	^1700	ND	ND	ND	ND	ND	ND
2-Hexanone	2	^5	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1	^5	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	^2	ND	ND	ND	ND	ND	ND
Toluene	1	1000	ND	ND	ND	ND	ND	ND
Chlorobenzene	1	^700	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	700	ND	ND	ND	ND	ND	ND
Styrene	1	^100	ND	ND	ND	ND	ND	ND
Xylene (total)	1	10000	ND	ND	ND	ND	ND	ND
Fecal Coliform (colonies per 100 ml)					0			200+

Note : Methylene Chloride is a common lab artifact/contaminant.

Values in ug/L

* = Fed. DW Std except where denoted by "^" symbol it is FLTG GW cleanup criteria

Shaded values indicate detected concentration at or above detection limits.

044887

Riverdale Well Samples — French Ltd. Project

	(b) (6) Address		(b) (6)							
	Detect Limit	Federal DW* Standard	5/11/94 RD-1	5/24/94 RD-1	6/23/94 RD-1	7/15/94 RD-1	5/11/94 RD-2	5/24/94 RD-2	6/23/94 RD-2	7/15/94 RD-2
Chloromethane	2		ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	2		ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	2	^2	ND	ND	ND	ND	7	8	5	6
Chloroethane	2	^10	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	1	5	ND	ND	0.9	ND	ND	ND	ND	ND
Acetone	2	^3500	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	1	^3500	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1	7	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1	^5	ND	ND	ND	ND	ND	ND	0.6	ND
1,2-Dichloroethene(Total)	1	70	ND	ND	ND	ND	2	ND	ND	2
Chloroform	1	100	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1	5	ND	ND	ND	ND	1	ND	0.9	0.5
2-Butanone	2	^1700	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1	^200	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	1	5	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	2	^35000	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1		ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	^5	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1	^5	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1		ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	5	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1		ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	2		ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	1		ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	2	^1700	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	2	^5	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1	^5	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	^2	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1	1000	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1	^700	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	700	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	1	^100	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	1	10000	ND	ND	ND	ND	ND	ND	ND	ND

Fecal Coliform (colonies per 100 ml)			0	0			200+	200+

Values in ug/L

* = Fed. DW Std except where denoted by "^" symbol it is FLTG GW cleanup criteria

Shaded values indicate detected concentration at or above detection limits.

85884

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French, Ltd. Project

FLTG, Incorporated

1024 GULF PUMP ROAD, CROSBY, TEXAS 77532 PHONE 713-328-1648 FAX 713-328-2996

June 27, 1994

Dr. J.F. Villanacci
Director
Health Risk Assessment and Toxicology
Texas Department of Health
1100 West 49th St.
Austin, TX 78756-3180

Dear John:

In response to your letter dated June 22, 1994, and the Health consultation, French Limited Site, FLTG has the following specific comments:

1. Vinyl Chloride was detected in one residential well (RD-2); RD-2 is located in the NE corner of Riverdale.

2. The unit description for the third column in Table 1 (Range of Values) appears to be incorrect; we believe the unit description should be "ug/kg" and not "mg/kg".

3. Using the attached formulas and conservative assumptions, FLTG calculated the inhalation risk to be about 1.6 to 1.7×10^{-5}.

4. FLTG will perform a site specific risk analysis of showering using RD-2 water. The critical site specific criteria are:

   a. Shower and shower-room duration.
   b. Shower frequency.
   c. Shower-room size and ventilation.
   d. Shower water droplet size and temperature.
   e. Exposure duration.

5. FLTG will continue to sample and analyze the water from RD-2 each month. The water will be analyzed for volatile organics and fecal coliform.

6. FLTG will continue to provide bottled drinking water to the potentially affected local residents (potential users of RD-2 water) until monthly sampling results (on RD-2) indicate compliance with Federal Drinking Water Standards for three consecutive months.

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7. The other residential wells along Maple Drive (RD-1, -3, -4, -5, and -6) will be sampled and analyzed once per quarter to confirm the extent of the affected groundwater; the samples will be analyzed for volatile organics and fecal coliform.

8. FLTG will provide assistance to local residents to repair the damaged surface completion of RD-2. The fecal coliform in RD-2 could be due to nearby septic systems.

9. FLTG will evaluate long-term options for RD-2 as additional data is generated.

Please contact me if you have any questions or comments.

Sincerely,

R.L. Sloan

RS/ks

cc: J. Black, USEPA, Dallas
J. McLeod, CH2M Hill, Austin
J. Sher, TNRCC, Austin

Memo

To: Dick Sloan

From: Ron Jansen/Jim Thomson

Date: July 21, 1994

Subject: Site-Specific Risk Assessment for Well RD-2
Vapor Inhalation During Showering

Sampling Procedures

Sampling was performed as described in the July 6, 1994 work plan. Sampling was performed on July 7, 1994 between 2:00 p.m. and 4:30 p.m. by Jerry Green (G&F Technical Services), Ron Jansen (FLTG Database/QAQC Manager), and Jim Thomson (Applied Hydrology Associates, Inc.). (b) (6) son of the property owner, was present during much of the sampling.

The shower is over a bath tub with a shower curtain. Samples were collected inside the shower area with the bathroom extractor fan off. Samples collected consisted of one baseline sample, and two sets of four shower samples (sample runs R-1 and R-2) with air collection at nominal rates of 100, 200, 400, and 800 cc/min. Pump flow rates were calibrated before and after sample collection using an SKC Accuflow 712 flow meter. Pumps were closely monitored during sample collection.

Results

Results are presented in Tables 1 through 3. Table 1 presents laboratory analytical results expressed as the weight in nanograms (ng[1]) of volatile organic compounds (VOCs) detected in each Tenax™ tube. To obtain concentrations in ambient air, these weights are divided by the volume of air drawn through each tube during the 25-minute sampling period. Table 2 presents VOC concentrations in ng/cc of ambient air. Nanograms per cc are equivalent to mg/M^3. Sampling results showed general agreement between runs and between samples in each run, with some variation.

In the baseline sample, the VOCs detected at highest concentrations (in µg/M^3) were acetone (17.7), toluene (1.9), and dichloromethane (1.7). In the shower samples, the VOCs detected at highest concentrations were 1,1,1-trichloroethane (34.2), trans-1,2-dichloroethene (11.0), and benzene (3.2).

Risk Calculations

[1] 1 nanogram = 10^{-9} grams

Table 3 presents: maximum and baseline concentrations as mg/M^3 and µg/M^3; inhalation unit risks for VOCs; and calculated risks for baseline and showering conditions. Only risks for carcinogens or suspected carcinogens were evaluated. No inhalation reference concentrations (RfCs) for non-carcinogenic health effects were exceeded, therefore risks for non-carcinogens were not evaluated.

Calculated risks were calculated by multiplying the concentration (in µg/M^3) by the inhalation unit risk (in M^3/µg). For showering, the maximum concentration was used as a conservative approach. Inhalation unit risks were obtained from EPA's IRIS data base, or from other EPA guidance documents where no IRIS data was available. Risk calculations assume a 70 kg person breathing at 20 M^3/day. The baseline risk calculation assumes exposure to air at baseline concentrations 24 hours per day for 7 years. The showering risk calculation assumes exposure to air at maximum shower concentrations, 25 minutes per shower, one shower per day, for 7 years.

Risks for each VOC were calculated separately. Where a VOC was not detected, or no inhalation unit risk was specified, risk was calculated as zero. Total risk was calculated by summing risks for each VOC. The total risk for showering was just under 1×10^{-6}. The total risk for ambient air was just over 1×10^{-6}.

In the baseline sample, 100% of the calculated risk was due to benzene (7.0×10^{-7}), carbon tetrachloride (4.9×10^{-7}), and acetone (8.2×10^{-8}). For the maximum-concentration shower results, 81% of the calculated risk was due to vinyl chloride (5.9×10^{-7}) and 1,2-dichloroethane (1.5×10^{-7}).

Sewage Contamination

It should be noted that well RD-2 is evidently contaminated by sewage effluent. The shower water had a rank sewage-like odor. Water samples previously obtained from well RD-2 contained coliform bacteria exceeding 200 CFU/mL. Homes in this area dispose of sewage to septic tanks, with a shallow water table approximately 7 to 9 feet deep.

Recommendations

The site-specific health risk from vapor inhalation during showering, using conservative assumptions, is within established limits and does not require action. The health risk due to sewage contamination has not been evaluated. Evaluation may indicate the need to treat well water for bacteria and viruses.

French Ltd. Project
FLTG. Incorporated

Table 1

	Baseline	R1-100	R1-200	R1-400	R1-800	R2-100	R2-200	R2-400	R2-800
avg. cc/min >	1580	100	160	368	636	89.4	209.5	394	829.5
Compound	ng	ng	ng	ng	ng	ng	ng	ng	ng
Chloromethane		17.2	22.5		14		15.1	17.6	12.7
Bromomethane	25.4	14.8	14.9	28.3	16.4		11.1	13	12.7
Vinyl chloride		10.2	4.5	6.8			5.1	7.1	
Chloroethane									
Dichloromethane	68.8	191.0	15.4	201	124	28.6	16.9	75.5	30.9
Acetone	701.0	124.0	99.1	397	429	95.9	153	358	309
Carbon disulfide									
1,1-Dichloroethene									
1,1-Dichloroethane		6.2	6.7	44.4	173	7.8	16	33	83.8
trans-1,2-Dichloroethene		15.4	6	73.2	66.9	12.9	18.4	108	103
Chloroform									7.4
1,2-Dichloroethane				21.3	24.7		17.1	24.5	63.9
2-Butanone	33.5	8.1	6.7			8.6	14.3	13.7	34.5
1,1,1-Trichloroethane	17.0	8.1		142	544			11.2	135.7
Carbon Tetrachloride	12.9			8	13.7		5.9	9.8	14.8
Vinyl acetate									
Bromodichloromethane									
1,2-Dichloropropane									9.1
cis-1,3-Dichloropropene									
Trichloroethene									7.7
Dibromochloromethane									
1,1,2-Trichloroethane									
Benzene	33.6	7.8	6.9	18.3	30.1	7.1	13.8	20.6	43.8
trans-1,3-Dichloropropene									
2-Chloroethylvinyl ether									
Bromoform									
4-Methyl-2-pentanone									
2-Hexanone									
Tetrachloroethene									
1,1,2,2-Tetrachloroethane									
Toluene	74.5	24.2	14.1	49.6	84.2	14	38.9	54.8	157.5
Chlorobenzene									
Ethylbenzene									8.5
Styrene	6.2								5.7
Xylene (total)	10.3				6.2				14.7
Hexane	38.1	108.0	45.4	75.4	22.5	45.7	48	56.8	74.7
Total ng/tube >	1021.3	535.0	242.2	1065.3	1548.7	220.6	373.6	803.6	1109.5

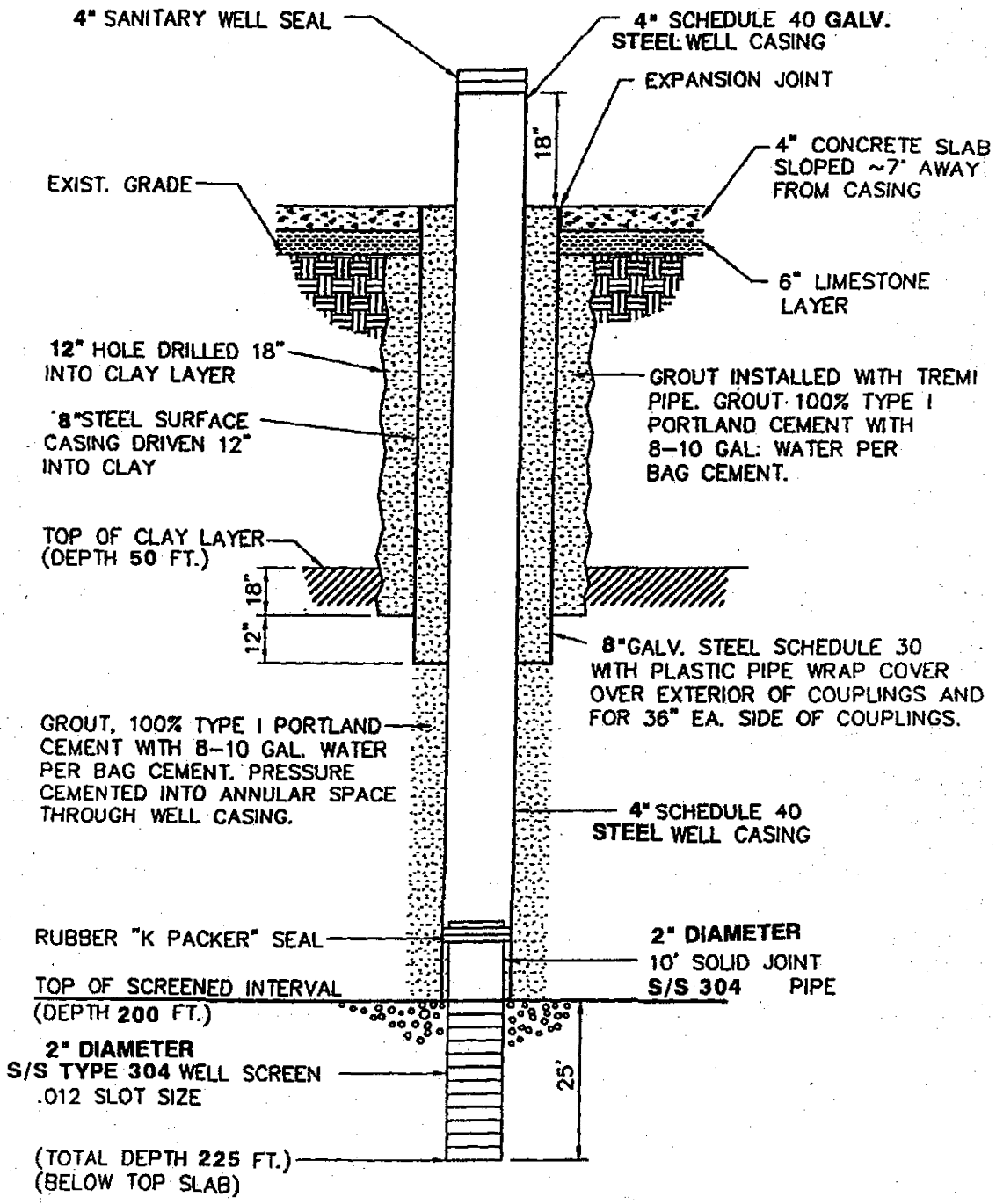
Table 2

Compound	R1-100 ng/cc	R1-200 ng/cc	R1-400 ng/cc	R1-800 ng/cc	R2-100 ng/cc	R2-200 ng/cc	R2-400 ng/cc	R2-800 ng/cc
Chloromethane	0.0069	0.0056	0.	0.0009	0.	0.0029	0.0018	0.0006
Bromomethane	0.0059	0.0037	0.0031	0.001	0.	0.0021	0.0013	0.0006
Vinyl chloride	0.0041	0.0011	0.0007	0.	0.	0.001	0.0007	0.
Chloroethane	0.	0.	0.	0.	0.	0.	0.	0.
Dichloromethane	0.0764	0.0039	0.0218	0.0078	0.0128	0.0032	0.0077	0.0015
Acetone	0.0496	0.0248	0.0432	0.027	0.0429	0.0292	0.0363	0.0149
Carbon disulfide	0.	0.	0.	0.	0.	0.	0.	0.
1,1-Dichloroethene	0.	0.	0.	0.	0.	0.	0.	0.
1,1-Dichloroethane	0.0025	0.0017	0.0048	0.0109	0.0035	0.0031	0.0034	0.0031
trans-1,2-Dichloroethene	0.0062	0.0015	0.008	0.0042	0.0058	0.0035	0.011	0.005
Chloroform	0.	0.	0.	0.	0.	0.	0.	0.0004
1,2-Dichloroethane	0.	0.	0.0023	0.0016	0.	0.0033	0.0025	0.0031
2-Butanone	0.0032	0.0017	0.	0.	0.0038	0.0027	0.0014	0.0017
1,1,1-Trichloroethane	0.0032	0.	0.0154	0.0342	0.	0.	0.0011	0.0065
Carbon Tetrachloride	0.	0.	0.0009	0.0009	0.	0.0011	0.001	0.0007
Vinyl acetate	0.	0.	0.	0.	0.	0.	0.	0.
Bromodichloromethane	0.	0.	0.	0.	0.	0.	0.	0.
1,2-Dichloropropane	0.	0.	0.	0.	0.	0.	0.	0.0004
cis-1,3-Dichloropropene	0.	0.	0.	0.	0.	0.	0.	0.
Trichloroethene	0.	0.	0.	0.	0.	0.	0.	0.0004
Dibromochloromethane	0.	0.	0.	0.	0.	0.	0.	0.
1,1,2-Trichloroethane	0.	0.	0.	0.	0.	0.	0.	0.
Benzene	0.0031	0.0017	0.002	0.0019	0.0032	0.0026	0.0021	0.0021
trans-1,3-Dichloropropen	0.	0.	0.	0.	0.	0.	0.	0.
2-Chloroethylvinyl ether	0.	0.	0.	0.	0.	0.	0.	0.
Bromoform	0.	0.	0.	0.	0.	0.	0.	0.
4-Methyl-2-pentanone	0.	0.	0.	0.	0.	0.	0.	0.
2-Hexanone	0.	0.	0.	0.	0.	0.	0.	0.
Tetrachloroethene	0.	0.	0.	0.	0.	0.	0.	0.
1,1,2,2-Tetrachloroetha	0.	0.	0.	0.	0.	0.	0.	0.
Toluene	0.0097	0.0035	0.0054	0.0053	0.0063	0.0074	0.0056	0.0076
Chlorobenzene	0.	0.	0.	0.	0.	0.	0.	0.
Ethylbenzene	0.	0.	0.	0.	0.	0.	0.	0.0004
Styrene	0.	0.	0.	0.	0.	0.	0.	0.0003
Xylene (total)	0.	0.	0.	0.0004	0.	0.	0.	0.0007
Hexane	0.0432	0.0114	0.0082	0.0014	0.0204	0.0092	0.0058	0.0036
Total ng/cc >	0.214	0.0606	0.1158	0.0974	0.0987	0.0713	0.0816	0.0535

Table 3

Compound	SAMPLE MAX ng/cc mg/M3	BASE LINE ng/cc mg/M3	SAMPLE MAX ug/M3	BASE LINE ug/M3	Inhalation Unit Risk (1) (per ug/M3)	7 year 25 min per day Max Risk (Shower)	7 year 24 hour per day Risk (Baseline)
Chloromethane	0.00688	0.	6.88	0.	1.80E-06	2.14999E-08	0
Bromomethane	0.00592	0.00064	5.92	0.64304		0	0
Vinyl chloride	0.00408	0.	4.08	0.	8.40E-05	5.94996E-07	0
Chloroethane	0.	0.	0.	0.		0	0
Dichloromethane	0.0764	0.00174	76.4	1.74177	4.70E-07	6.23399E-08	8.18633E-08
Acetone	0.0496	0.01775	49.6	17.74684		0	0
Carbon disulfide	0.	0.	0.	0.		0	0
1,1-Dichloroethene	0.	0.	0.	0.	5.00E-05	0	0
1,1-Dichloroethane	0.01088	0.	10.8805	0.		0	0
trans-1,2-Dichloroethene	0.01096	0.	10.96447	0.		0	0
Chloroform	0.00036	0.	0.35684	0.	2.30E-05	1.42488E-08	0
1,2-Dichloroethane	0.00326	0.	3.26492	0.	2.60E-05	1.47374E-07	0
2-Butanone	0.00385	0.00085	3.84787	0.8481		0	0
1,1,1-Trichloroethane	0.03421	0.00043	34.21384	0.43038		0	0
Carbon Tetrachloride	0.00113	0.00033	1.12649	0.32658	1.50E-05	2.93355E-08	4.89873E-07
Vinyl acetate	0.	0.	0.	0.		0	0
Bromodichloromethane	0.	0.	0.	0.		0	0
1,2-Dichloropropane	0.00044	0.	0.43882	0.		0	0
cis-1,3-Dichloropropene	0.	0.	0.	0.		0	0
Trichloroethene	0.00037	0.	0.37131	0.	4.80E-06	3.09421E-09	0
Dibromochloromethane	0.	0.	0.	0.		0	0
1,1,2-Trichloroethane	0.	0.	0.	0.	1.60E-05	0	0
Benzene	0.00318	0.00085	3.17673	0.85063	8.30E-06	4.57756E-08	7.06025E-07
trans-1,3-Dichloropropen	0.	0.	0.	0.		0	0
2-Chloroethylvinyl ether	0.	0.	0.	0.		0	0
Bromoform	0.	0.	0.	0.	1.10E-06	0	0
4-Methyl-2-pentanone	0.	0.	0.	0.		0	0
2 Hexanone	0.	0.	0.	0.		0	0
Tetrachloroethene	0.	0.	0.	0.	9.40E-07	0	0
1,1,2,2-Tetrachloroetha	0.	0.	0.	0.	5.80E-05	0	0
Toluene	0.00968	0.00189	9.68	1.88608		0	0
Chlorobenzene	0.	0.	0.	0.		0	0
Ethylbenzene	0.00041	0.	0.40989	0.		0	0
Styrene	0.00027	0.00016	0.27486	0.15696		0	0
Xylene (total)	0.00071	0.00026	0.70886	0.26076		0	0
Hexane	0.0432	0.00096	43.2	0.96456		0	0
					TOTAL RISK >	9.18664E-07	1.27776E-06

Well Construction Diagram



Location Map